

Abstract

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Historic settlements and pastoralism in the Arctic and Tibetan Plateau: towards a comparison

Historic settlement processes of respectively the Northern Sámi and Western Tibetan pastoralists, have so far not been subjected to any comparative social science analyses. This study contributes to such a conceptual platform, drawing on the constructs dwelling, settlement, herding unit, pastoral landscape and the labor-animal-pasture triangle. Ethnographic and archival evidence of transitions from sedentary/semi-sedentary to full-fledged pastoralist societies and transitions from a pastoral adaptation to sedentary and semi-sedentary life are analyzed and debated in light of the influential theoretical proposition of a categorical difference between a nomad's and a farmer's dwelling. At the core of this comparative inquiry is two highly dynamic pastoral herding societies. It is argued that a comparative approach to the study of settlements requires a theoretical and analytical reframing – informed by a more adequate comprehension of the dwelling-settlement nexus. This preliminary scrutiny of dwelling designs and settlement practices of Sámi and Tibetan pastoralists indicates that nomads in both regions internalized and activated different spatial models and inventively mediated between different spatial models according to seasonal or irreversible shifts of leaving the nomadic adaptation altogether. Further rigorous empirically inquiry into accommodation, innovation, and possible failures to mediate gaps in the making/remaking of dwellings and settlements are called for.

Keywords

Pastoralists, Northern Sápmi, Western Tibet, dwellings, settlements, herding units

34 **Historic settlements and pastoralism in the Arctic and Tibetan Plateau:**
35 **Towards a comparison**

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39

40 **Introduction**

41 This paper aims to examine recent research on historic settlements of respectively the
42 Northern Sámi and Tibetan pastoralists. Social scientists devoting themselves to the study of
43 settlements in the High North and the Tibetan Plateau have hitherto not been much
44 preoccupied with the relevance of each other's work to their own. Here I make an effort to
45 advance a comparative approach to future studies of settlements in a pastoralist context.¹ In
46 order to in order to tease out comparative intakes and useful arguments, I examine current
47 research on how historic changes of Northern Sámi pastoralism affected settlements with my
48 own recent work with Tibetan colleagues of historical pastoralist settlements in the Western
49 Tibetan Plateau.²

50 The current interest in contributing to a comparative turn emerges from a longstanding
51 research partnership involving Norwegian natural and social scientists and native scholars
52 from The Tibetan Autonomous Region (TAR) in China (Fox et al., 2004; Fox and Tsering
53 2005; Yangzong 2006; Dorji et. al., 2010; Næss 2013; Tsering and Bleie 2016, 2017; Bleie
54 and Tsering 2017). Collaborative research between the University of Tromsø on the nomads
55 of the Tibetan Plateau is an evolving sub-field over the last 15-years. Realization of the merits
56 of comparative studies in the social sciences and humanities is notably slower than in the
57 natural sciences. This paper represents a modest attempt to stimulate comparative nomadic
58 studies and facilitate cooperation between scholars of the High North, of the Tibetan Plateau,
59 and of neighboring pastoralist areas of Central Asia. In a review of Khazanov's magisterial

60 comparative study *Nomads and the Outside World* (1984), Ingold (1985) rightly bemoaned
61 the fact that most comparisons have been intraregional in scope. His regrets three decades
62 later largely rings true as it comes to interregional studies of Northern reindeer herders and
63 yak herders of the Tibetan Plateau.

64 By way of introduction, I would like to explain the paper's comparative and
65 theoretical underpinnings. This author received her training at an anthropological department
66 where Fredrik Barth and several other professors insisted that we students should understand
67 pastoral studies as a comparative endeavor (Barth 1959, 1961, 1966, 1969). Comparison was
68 not confined to intraregional studies of the pastoralists of Africa's semi-dry savanna belt. The
69 pastoralists of the Sahel belt could profitably be compared with highland pastoralists eking
70 out a living with their herds in Himalaya's rain shadow. The theoretical locus was social
71 forms, generated by behavioral patterns, be they herder-herd-pasture dynamics, relations
72 between nomads and the sedentary society, and dwellings. This stance came to influence later
73 processual and actor-based anthropological models of pastoralist movements (see, e.g Dwyer
74 and Istomin 2008), and, indeed, this author's enduring theoretical outlook.

75 The interregional comparison of pastoralists making a living with their mobile herds
76 under somewhat similar environmental conditions historically and contemporaneously, builds
77 in brief on the following assumptions. Historically, pastoralist herders and their flocks in the
78 circumpolar North and the Tibetan Plateau managed to adapt to the extremely adverse
79 conditions in some of the world's harshest mountain environments. Both regions undergo
80 extreme temperature variation between long, windy, and bitterly cold winters, transitory
81 seasons (when seasonal migrations could take place), and brief, moderately warm summers.
82 Several environmental and ecological parameters are rather similar in the two regions,
83 including seasonal climatic variations, extensive use of Alpine mountain meadows as pastures
84 and hunting grounds, and an abundant wildlife providing an excellent source of protein, furs,

85 and hides for consumption and exchange. Both mountain regions offer niches for pastoralism
86 – a highly specialized adaptation of human herders and semi-domesticated flock animals. In
87 both regions, nomads rely on mobility to manage resource variability. The same mobility
88 imposes certain preconditions for their dwelling modes. Both yak and reindeer can survive
89 outdoors in freezing temperatures. These similarities aside, reindeer herders in circumpolar
90 areas, including Northern Norway, unlike yak herders, combined inland herding and foraging
91 with fjord side herding and exploitation of marine resources. The differences in transhumance
92 cycles between inland and fjord, on the one hand, and mountain dwellers, on the other, do not
93 pose serious difficulties to our comparative interest.

94 The paper is devoted to a discussion and re-analysis of the history and ethnography of
95 dwellings and settlements, set within a comparative history of the transition to pastoralism.
96 Empirical evidence is drawn from studies on Sámi reindeer pastoralists in Northern Norway
97 in the eighteenth and nineteenth centuries, and from the Tibetan Plateau in the seventeenth
98 and eighteenth centuries. The first half of the paper will explain my theoretical approach to
99 the dwelling-settlement nexus, which I apply first to recent historical evidence of reindeer
100 pastoralism. The second half will analyze the black yak tent as a dwelling mode in a relation
101 to the construct of settlement, drawing on my own collaborative research in the Western
102 Tibetan Plateau, as a basis for arguing the comparative case.

103 It is beyond the scope of this paper to undertake a comparative discussion within a
104 first-third pole framework of the strikingly similar transformations in TAR/China and
105 Northern Norway from the 1960s onward of nomadic adaptations to strictly state-regulated
106 herding regimes. These transformations are characterized by permanent settlements and
107 resettlements and altered herd management regimes, both a response to climate changes while
108 also affecting fragile environments. My colleagues from China and I would definitively want
109 to prioritize a first-third pole perspective in a possible next phase in our collaborative

110 research. We have noticed that in both countries, government-sponsored policies including
111 housing schemes, subsidized fencing, and a range of other incentives and disincentives have
112 had rather dire consequences. They should warrant comparative research on how pastoralists
113 in both regions negotiate new compromises between sedentary and mobile lifestyles, the new,
114 presence of extractive industries, mass tourism and climate-induced environmental change.
115 These public policies and programs have so far stimulated intra-regional or case-oriented
116 studies. Of importance here are works that avoid simply appropriating ideologically laden
117 notions of permanent settlements/resettlements and offer an informed critique of state-centric
118 or civil-society centric constructs of settlements and dwellings (see, e.g. Nilsen and Mosli
119 1994, Wheelersburg and Gutsol 2010, Huber and Blackburn 2012, Bjørklund 2013a, Næss
120 2013; Gaerrang 2015, Ptackova 2015).

121

122 **Approaching the study of the settlement-dwelling complex**

123 Permanent settlements in both regions were until as late as the 1960s confined to the rims of
124 vast nomadic realms that had existed for several centuries, even millennia. In Northern
125 Norway – as elsewhere in the High North and in the Tibetan Plateau – mobile tents
126 constituted the principal dwelling form. Apart from the prominence of research on permanent
127 settlements as a central societal force behind fundamental changes in pastoralist societies, the
128 term *settlement* nevertheless figures in historically oriented literatures that seek to
129 comprehend the drivers behind the rise, expansion, decline, and structure of migratory
130 herding societies. This body of literature seeks to understand certain fundamentals of herding
131 regimes in terms of their dynamic interfaces with agricultural civilizations and state
132 formations, sophisticated skill base, changes in social organization and transhumance cycles,
133 conservation practices and the dwelling-settlement nexus. In recent years, the explanatory,

134 cross-cultural relevance of the settlement-dwelling nexus has attracted theoretical reflection
135 and a more rigorous methodological scrutiny. Inspired and informed by these developments,
136 this paper employs a diverse toolbox equipped to interpret both ethnographic and archival
137 evidence of what appear to be different operative spatial models underlying the diversity of
138 the dwelling-settlement nexus in both Northern Norway and Western Tibet.

139 Arguably, the constructs of *dwelling*, *herding unit*, and *landscape* may prove
140 especially useful as comparative intakes to the study of settlements since they build on certain
141 assumptions. The first of these may appear trivial: Nomads generally eke out a living in arid
142 environments. Tent-like, nomadic, iconic dwellings, be they in the Arctic, Central Asia, the
143 Sahel, or Middle East, shelter humans and their domesticated animals against freezing winds,
144 sweltering heat, sandstorms, insect swarms, and intruders, be they wild animals, robbers, or
145 raiders. The Northern Sámi *laavu*, the Tibetan black yak-hair tent or *dra nag*, or the Tuareg
146 red goatskin tent or *ahakit*, to name a few, all provide lifesaving shelter. Their interiors in
147 addition to pole-supported leather or woven wool clad membranes, are intricately designed
148 and utilized social spaces. The interiors would have delineated places for hearth, worship,
149 cooking, and dining, sleeping space, storage, processing, and production. More conceptually
150 intriguing, dwellings of pastoralists constitute microcosms of their cosmologies, exhibiting
151 striking similarities and certain unique traits within and between pastoral belts. A related
152 argument is that these iconic dwellings as material structures are somehow integral to
153 nomadic settlements as an analytical category. Intuitively, we may assume that individual
154 mobile dwellings are building blocks of these realms, which extend in time and social space.
155 The gaze of a Western observer may instinctively take for granted that any vast nomadic
156 realm is constituted by tent-like dwellings fanning out as dots or clusters across enormous
157 pasturelands or landscapes.³

158 Trained in anthropology, one learns how to be self-reflective about any landscape as a
159 construct of tacit propositions about its social and natural features. Certainly, this author's
160 lenses were also formed by looking at Western or Eastern sedentary peasant civilizations and
161 science, notably cartography's and architecture's definitions of what constitutes a house (*hus*)
162 and a settlement (*bebyggelse* or *bosetting*). The term *settlement* is not only understandable
163 (for the reasons stated above) by a team of Tibetan and Norwegian researchers, it carries
164 distinct political and normative connotations, which simply cannot be disregarded by this
165 author as a participant in a Sino-Norwegian collaborative research endeavor. This author's re-
166 conceptualized notions of landscape, dwelling, settlement and the space-place dichotomy, is
167 influenced by internal critique and theory formulations within respectively social and
168 cognitive anthropology. The first investigates cultural landscapes as molded through local
169 practice and as a cultural process (see, e.g. Hirsch and O'Hanlon 1995; Ingold 2000; Low and
170 Lawrence-Zuniga 2003). The second is informed by the way the neuropsychology of spatial
171 orientation conceptualizes an egocentric model of landscape orientation and a socio-centric
172 model based on, for example, celestial coordinates and watershed contours (Shore 1996, 276-
173 280). My principal reasons for proceeding as cautiously as this, is because I want to make
174 relevant recent decades' rigorous theory development in social and cognitive anthropology,
175 ethno-archeology, and cultural geography, which enriches the comparative study of dwelling,
176 landscape, and settlement.

177 Recent contributions to the study of dwelling should stimulate scholars to pay more rigorous
178 attention to testing theoretical arguments, both abstract reasoning and concrete propositions,
179 which may be tested against ethnographic evidence. Such insights can be brought to bear on
180 this paper's preoccupation with settlements. We obviously should strive to gain insights
181 beyond interrogating how material features, including building materials and skill sets,
182 constitute vernacular architecture. We may have to shift our focus to grappling with the nature

183 of (dis-)continuity between the built and the surrounding landscape. In the high mountains of
184 Western Tibet, the degree to which the exteriors of traditional tents merged with the
185 surroundings would vary with the seasons. The analytical issue of dwellings' exteriors and
186 submergence within the surroundings aside, more interesting questions about dis/continuity
187 between the built and expansive mountain realms depend on conceptualizing the spatial
188 organization of the interiors. Pastoralists' notions of dwelling and encampment realm are
189 intertwined with their cosmological ideas, enacted in their highly skilled practices in ways we
190 need to better comprehend. At the core of this inquiry is the pastoral mobile herding regime.
191 Said more explicitly, a well-informed approach to the study of settlements requires a
192 theoretical and analytical reframing – informed by a more adequate comprehension of the
193 defining traits of the herding regime – which pivots around the herder-herd-land triad.

194 The work of anthropologist Tim Ingold represents a theoretical view of the conical
195 mobile tent or lodge as fundamentally different from any permanent dwelling. The tent with
196 its wooden frame, converged at the apex, forming an interior space with the hearth at its
197 center is a sky-earth structure, an enveloped form mediating earth and sky (Ingold 2000, 63-5;
198 2011, 211; 2013, 13-28). Ingold takes issue with view in his and my discipline (and shared in
199 cultural studies) of the tent or lodge as vernacular architecture, a structure based on a “local”
200 design, crafted into a background landscape, whether this is explicitly articulated or not. His
201 processual “organic” earth-sky theory, Ingold maintains, is a far more adequate representation
202 of key facets of indigenous cosmology and skilled practice. The nomadic dwelling is a matrix
203 of earth, the sacred hearth and the textile or fur membrane. It shields old and young against
204 winds and wild animals and defines a sheltered space for life-sustaining reproductive,
205 productive, and other sense-making processes. In Ingold's scheme, the nomad and the farmer
206 live under same sky, touch similar elements and inhale the same air. Here the similarities end.
207 Their engagement with the earth they inhabit and the epistemologies of their respective

208 inhabited or lived realms differ fundamentally, creating different constellations of what one
209 may call mindscapes and landscapes. These distinct epistemologies structure at a more
210 concrete observational level different notions of human-land and human-animal relations and
211 land custodianship.

212 Ingold's bold postmodern theorizing, firmly anchored in an extensive philosophy of
213 science examination of paradigmatic sciences (architecture, art history, engineering, and
214 geography) offers much food for thought. His arguments should be understood as an ideal
215 model that is good "to think with," yet not necessarily verifiable empirically in all empirical
216 instances. As I shall argue, pastoralists may internalize and activate different spatial models
217 and inventively shift and mediate between spatial models in their own seasonal dwelling and
218 settlement practices. Our own research on spatial models of Tibetan nomads in the
219 seventeenth century, reveal how conversant they were with monastery complexes, which were
220 architecturally designed monumental buildings. The question is how different the spatial
221 models underlying a monastery are from a nomadic tent. In view of the finding that quite a
222 number of early nomads of the Chang Tang Plateau came from farming communities in
223 Eastern Tibet, we are also trying to explain the adaptation and survival skills of farmers
224 turned pastoralists. Works on the Northern Sámi during the heydays of pastoralism, show how
225 they shifted back and forth between highly mobile and semi-permanent dwellings and
226 settlements. There was a trickle of nomads that left the specialized pastoralist adaptation and
227 resettled in permanent Sea Sámi settlements, carving out a living combining fishing and
228 agriculture with husbandry and hunting. Ingold's theoretical propositions about a categorical
229 fundamental difference between nomads and farmers dwellings may nevertheless be useful to
230 keep in mind, as we attempt to analyze transitions from sedentary and semi-sedentary to a
231 full-fledged mobile society (also exiting to sedentary adaptations) which would seasonally

232 embrace semi-sedentary life in close proximity to sedentary settlements, be they farming
233 villages or monasteries.

234 **The debate on origins of Sámi pastoralism and settlements**

235 My interest in this evolving field of research on the origins and defining features of Sámi
236 reindeer pastoralism is rather eclectic, and mostly confined to empirical evidence (direct and
237 indirect) of settlement structures, dwellings, and contributions to theories on the settlement-
238 dwelling complex.

239 Offering a persuasive, evidence-based critique of the theory of large-scale, unilineal
240 transformations as a shift from hunting and gathering to reindeer herding, Ivar Bjørklund
241 (2013 a, b) argues that the Sámi pursued various livelihood strategies down the ages involving
242 different combinations of hunting, fishing, and reindeer husbandry. Unpacking a fascinating
243 analysis that combines ethnographic insights with text-based evidence, Bjørklund argues that
244 full-fledged pastoralism only evolved in the eighteenth century (2013a, 186). He demonstrates
245 the importance of evidence of how herders' household organization, was structured around
246 productive and reproductive tasks that affected dwellings' design and functionality. This
247 series of arguments can be taken further, offering crucial insights into settlement patterns.

248 Addressing a joint work of historian Lars Ivar Hansen and archeologist Bjørnar Olsen
249 (2004), Bjørklund argues that crucial changes in settlement patterns were a direct effect of a
250 long-term transition, rather than a shift from hunting to pastoralism. This specialized
251 adaptation emerged from a long historic period (dating back to prehistoric times) during
252 which different combinations of hunting, gathering, fishing, and domestication (of dogs and
253 reindeer) coexisted. With the rise of pastoralism, the mobile *bealljigoahti* became a principal
254 dwelling. It consisted of two pairs of double-arched poles (*beallji*) and a dozen of straight
255 poles. The construction had a proper doorway and was covered with woven fabric. The lighter

256 conical *lavvu*, akin to the principal dwelling type of circumpolar peoples of the U.S., Canada,
257 and Russia, was used during seasonal migrations. Both designs were ingenious adaptations
258 and functioned to accommodate dwelling requirements during migrations and stationary
259 seasons under new extensive herding regimes. What is enlightening for my interest in the
260 settlement-dwelling complex, is Bjørklund's argument about shifts in livelihoods based on a
261 rigorous household analysis. Making use of a range of visual and textual historical sources,
262 including medieval drawings, travelogues, and other written sources, he succeeds in
263 establishing evidence of how a household-centered and kinship-based social organization
264 responded to and exploited a range of opportunities to harvest nature's bounty and to deploy
265 human talent in taming the reindeer, a wild flock animal.

266 A brief commentary is tempting on discernible parallels between Bjørklund's
267 preoccupation with a household mode, Ingold's practice-based approach to cosmological,
268 political, and practical meanings of mobile dwellings and works of Henrietta Moore (1986)
269 and Vigdis Broch-Due (1991, 1993) on pastoralists in the East African savannas. The latter
270 two scholars primacy of gender theory aside, all actually apply practice-oriented theory to
271 household models and the construction of social space, body, place making and (en)skilling
272 processes, unraveling how dwellings, homesteads, and nomadic settlements are made and
273 unmade. What is important for this paper's analytical discussion is how these related strands
274 of scholarship all contribute to a fine-grained interrogation of how both humans and herd
275 animals (consciously and instinctively) form, accommodate, mediate, or transform shifts
276 (from incremental to radical) through their mutually constitutive and quite intimate bonds.
277 These shifts have profound implications for the structure of the functionality of dwellings,
278 homesteads, and encampment realms.

279 In the remainder of this section, I shall continue to engage not only with Bjørklund's
280 insights, but also Hansen's intricate approach based on economic history to understand how

281 the political economy of pastoralists and their settlements was formed at the pastoralist-state
282 interface. I will also make selective use of Nils Mikkel Sara's works on *Siidas* as kin-based
283 herding units – before turning in the next section to my own research on the dwelling-
284 settlement nexus in Western Tibet's formative nomadic society.

285 Building his evidence base against the postulate of a transformative shift from a
286 hunting to pastoralist existence, Bjørklund argues for a more balanced weighting of internal
287 and external drivers. Such a two-sided approach, he maintains, weakens the singular
288 trajectory theory from hunting to pastoralism argument. Evidence of somewhat different
289 household adaptations in the areas of Porsanger-Karasjok and Varanger are presented,
290 showing that variations largely reflected local fluctuations in resources and environment.
291 Different combinations of hunting, fishing, husbandry of semi-tame reindeer and sheep,
292 processing of milk, and hide and fur preparation, allowed for a reordered a gendered
293 household organization. Women and men partook in a variety of trade and barter
294 arrangements of various geographical scale. The trade and barter argument not only lends
295 evidence from data collected by economic historians, but also from an elaborate drawing on
296 the front cover of a book by a priest named Schefferus, originally published in 1673, a
297 collection of reports from missionary journeys in Northern Sweden. The front cover depicts a
298 man and woman with a tame reindeer on the move. Analyzing the picture, Bjørklund takes
299 particular notice of their leather clothing and the kinds of utensils and implements they carry.
300 Arguably, from a gender point of view, it can be interpreted as testimony to the critically
301 interrelated nature of reproduction, consumption, and production. The woman leads a *bouzu*
302 that carries her (possibly the couple's own) infant in a *komse*. The drawing graphically
303 portrays salient facets of a mobile household prior to specialized pastoralism. It is safe to
304 assume the picture would not have been chosen as the cover, had the scene been exceptional.
305 Schefferus, a prominent cleric and traveler, wanted to show his readers a familiar (rather than

306 a rare) observed episode. Couples undertook bartering journeys with dependents, even small
307 children. Sámi women were herders, hunters, gatherers, and processors of many animal, fish,
308 dairy subsistence and barter products. Breastfeeding women would travel to exchange and
309 barter, bringing along infants and toddlers. Draft reindeer relieved parents from having to
310 carry dependents and goods over the tundra. The *boazu* toddled along with their precious
311 human cargo. The heat given off by the large animal could be a lifesaver for a child in a
312 *komse* when temperatures dropped far below zero.

313 An older drawing of a hunting scene offers additional evidence for Bjørklund's
314 (2013a, 177) analysis of quasi-human relations, especially with dogs. The drawing depicts a
315 group comprising a female and male hunter and their faithful dog chasing wild game. In this
316 author's understanding, more evidence could be elicited from the picture. The drawing is an
317 extraordinary graphic expression of a mobile integrated encampment realm. The female
318 hunter's hair is shown blowing in the wind. The group is about to cross a vast mountain area
319 on skis. The late-sixteenth-century artist placed them above a mountain range in order to
320 communicate the group's formidable range. Two tent-like dwellings are engraved floating
321 above the undulating land, suggestive of their mobile character. The artist may well have
322 intentionally omitted to mark any domestic realm set apart from the public mountain realm for
323 the simple reason that the private/public distinction did not exist.

324 **Evidence of a full-fledged pastoralist adaptation**

325 According to Bjørklund (2013b, 72), from the eighteenth century onward a significant
326 change in dwellings took place as a result of Sámi adaptation to pastoralism. Both different
327 tents and permanent turf huts became essential seasonal dwellings. They were built of local
328 materials and from durable woolen textiles bought from the Sea Sámi. The inland Sámi's
329 quest for a combined livelihood strategy coalesced with their herds' instinctive inclination to

330 migrate into an intricate, annual transhumance cycle for herders and animals. They would
331 spend the often bitterly cold winters in the vast inland plateau, currently divided by the border
332 between Norway, Sweden and Finland. Before the sun melted the snow-clad tundra, humans
333 and animals would set out on an arduous long journey across the plateau and along
334 watersheds to the rich fjord areas of what are currently the Norwegian counties of Finnmark,
335 Troms and Nordland. They were skilled in the use of the wild *goddi* deer, which instinctually
336 undertook the annual migration from inland to coasts. In the wake of the *goddi* semi-tame
337 *boazu* followed, in search of nutritious spring and summer pastures. In the fjord areas, the
338 nomads lived in turf huts, akin to the Sea Sámi dwellings, from June to August/September.

339 Evidence of a full-fledged adaptation to a pastoralist way of living can be gleaned
340 from herd size, fluctuating seasonally due to slaughter, mortality, and fecundity. More than a
341 *cora* (of 30–40 animals) was required for consumption, clothing, and trade for a couple with
342 offspring (Bjørklund, 2013a,182). Indeed, a specialized pastoralist regime required a winter
343 herd of around 200-250 animals (Bjørklund 2013a, 183). The resulting *siida* organization
344 developed new notions of customary justice, social values, and altered household strategies
345 and settlements as a response to quite significant changes in human-reindeer relations. The
346 semi-tame reindeer (*boazu*) perceived as wealth, became individualized property. Ownership
347 was literally inscribed into the reindeers' bodies by marking one ear of each animal. Larger
348 herds resulted from a number of drivers/factors. External causes were directly or indirectly
349 related to the expansion of the Danish–Norwegian, Swedish, and Russian states. Some of the
350 main factors behind the increase in herd size were the expansion of regional markets – which
351 spurred local trade – population growth, and diminishing supply of wild *goddi* due to
352 overexploitation. One crucial factor not be overlooked, the development of a particular skill:
353 the (semi)domestication of large flocks of reindeers. Increasing labor shortages limited
354 people's ability to learn and perform demanding everyday tasks, altering household strategies

355 and settlement organization. It became not only opportune, but necessary to mobilize the
356 larger ego-based kin group in order for woman and men to juggle new demanding herding
357 requirements and other productive and reproductive tasks. The Sámi's bilateral kinship
358 system proved functional for enhanced daily, seasonal cooperation, and labor supply.

359 A number of scholars have sought to theorize the dynamic intertwined cultural, social,
360 and economic facets of the bilateral kin-based *siida* organization. Without detailing
361 similarities and differences between the “new” and the “old” *siida*, one may assume that an
362 ego-based kin group gradually evolved into a functional, band-like herding organization that
363 optimized the people-land-pasture triad (Bjørklund (2013b, 185). The new bands were highly
364 flexible and responsive to pasture access, herd size, herd composition, and tax borders
365 (Vorren 1978, Bjørklund 2013). In a major recent study of the *siidas* conceptualized as a
366 combined social-ecological system, Nils Mikkel Sara (2015) offers an analytical toolbox and
367 empirical evidence enriched by his own practice as a reindeer herder in Finnmark.

368 Sara's theoretical point of departure (2015, 53-60) is partly based on earlier
369 collaboration with Ole Henrik Magga's (2001) and Nils Oskal's (1995, 2001), and on the
370 debated works of Bjørklund, in addition to the Canadian anthropologist's Fikret Berkes'
371 influential studies (2008, 2009). In Sara's scheme, indigenous ecological knowledge practices
372 must ground any social scientific understanding of reindeer herding and the herding groups'
373 mobile settlements and dwellings. Sara uncovers an intricately rich ethnography of the *siida*'s
374 significance as tacit knowledge. Such knowledge is held not only by humans, it is constituted
375 within an intimate human-animal bond, in which reindeer “opinion” counts and the
376 “landscape” is ever present spiritually, in a qualitatively different manner than in the
377 European-oriented sense discussed earlier (Sara 2015, 167-175). Such intriguing
378 contemporary insights into the multi-vocal *siida* concept may help to clarify Bjørklund's
379 hypnotized shift to a new incongruence between dwelling, herding group, and settlement.

380 As discussed, Bjørklund, Hansen and others maintain that taxation was one of the
381 important drivers behind the transition from combined hunting and herding to wholesale
382 reindeer pastoralism. Herding units composed of single households were taxed in their own
383 demarcated territories well into the eighteenth century (Vorren 1978). As larger networks
384 fanned out across the expansive tundra, these growing *siida* clusters defined the extent of their
385 respective nomadic realms. Outreach in terms of geographical scale and numbers of herders
386 and herd varied throughout the migratory cycle. The annual cyclical drift between inner
387 mountains and fjord-side summer pastures became institutionalized during the eighteenth
388 century. The nomads' seaside turf huts (*bealljigoahti* or *gamme*) were similar if not an
389 identical to the functional interior organization of the turf huts of the Sea Sámi, who
390 manufactured hut covering blankets of sheep's wool (*rátnu*) during the winter months
391 (Bjørklund 2013b, 72). How to best conceptualize the winter camps and the fjord side as
392 settlements? In their winter pastures, the Sámi had been the sole inhabitants for millennia,
393 itinerant traders and tax agents aside. The fjord areas were no longer the sole realms of the
394 Mountain and Sea Sámi. The rich fisheries and cultivatable land had attracted inner-fjord
395 settlers, and thriving fishing communities (*fiskevær*) along the coast profiting from the rich
396 Atlantic fisheries. However familiar the Sámi were with public buildings (like the Vardøhus
397 Fort and medieval churches) and private houses (from modest timber huts to mansion-like
398 trading houses or *handelshus*), they retained their ancient turf hut (*gamme*) with certain
399 functional modifications (see e.g Falkenberg 1941; Niemi 1983; Petterson 2013). Only
400 increasingly harsh assimilation policy in the nineteenth century led Sea Sámi to shift to
401 ordinary farmhouses, but even so, they retained their turf huts for a range of practical and
402 spiritual purposes.

403 In order to solidify our empirical grasp on the drivers and spatial outreach of
404 settlements, the work of the economic historian Lars Ivar Hansen (see e.g. 2012, 2013) on

405 relations and interaction between the coastal and inland Sámi and surrounding state
406 formations (from the late Middle Ages) is extremely helpful. Reliable taxation lists constitute
407 a prime source of evidence. The pastoral society was affluent, and provided room of
408 maneuver for pastoral producers and traders. Individual men were levied tax (Hansen 2012,
409 222). So was households as consumptive units, designated in the records as hearths (*røk*) or
410 hunting units (*bow*). Since these dwelling and production units were elements of larger *siida*
411 clusters, Hansen has used the records to draw up detailed spatial maps of the seasonal, annual,
412 and long-term movements of households and *siidas*, whose members are in these records.

413 What is fascinating for our specific inquiry, is how Hansen's mapping of the spatial
414 dynamics of Mountain Sámi's *siida* wanderings between mountain and fjord and of the Sea
415 Sámi's, also unravels the scale of settlements. These *siidas* opted for a semi-sedentary
416 adaptation along the Tana, Alta, and Varanger fjords of Finnmark. Studying this body of
417 evidence, one notes the optimal location of the market places for the mobile lifestyle of the
418 main Sámi camps on Finnmark's vast tundra and winding coastal rim, penetrated by fjords.
419 The patterns of mobility and settlement show striking variations, indicative of relatively short
420 seasonal movements between mountains and fjord pastures, but also intricate fjord-side
421 patterns of movement. People settled in camps for a couple of years, before moving to new
422 locations near the major salmon rivers and attractive fjord basins. The latter is testimony to a
423 kind of unidirectional migratory process. Other herding units chose a cyclical mobility pattern
424 and moved every third or fourth year, returning subsequently to their previous settlements.
425 Those who chose to settle in the fjords pursued livelihood strategies that combined usufruct
426 rights to pastures, fishing grounds, game territories and access to local and regional markets,
427 subject to fluctuations in the Hanseatic and Danish-Norwegian trade of the 1560s–90s
428 (Hansen 2012, 236). These dynamics drove the formation of Sea Sámi farms (*gårder*) and
429 hamlets (*bygder*).

430 Toward a comparison: The rise of a pastoral society in Western Tibet

431 In the circumpolar North, early humans arrived in the Upper Paleolithic around 36,000 years
432 ago (Seguin-Orlando et al. 2014) and in the more accessible parts of the Tibetan Plateau not
433 many thousand years later, since the climate was considerably warmer than now
434 (Brantingham, Olsen and Schaller 2001). Husbandry emerged in certain parts of Central,
435 Eastern and Western Tibet at least 4,000 years ago, driven by the advantageous triangular
436 relationship between humans, semi-domesticated animals, and pastures and a dynamic
437 exchange with early agricultural civilizations.

438 The modern history of yak and sheep nomadism in the southwestern Chang Tang in
439 the Western High Plateau, is a fairly recent adaptation, not unlike Sámi pastoralism. I shall in
440 this part of the paper presents a selection of findings from our current project on the
441 incremental rise of pastoralism in this part of the Plateau, findings which arguably “may
442 speak to” the much debated but crucial historical insights of scholars on reindeer pastoralism.
443 Pastoralism in Chang Tang dates at least back to the latter half of the seventeenth century.
444 The reason for the late arrival of an extensive pastoral regime in this corner of the Tibetan
445 Plateau is its extreme altitude of 4,500 meters or more. Chang Tang has been called a high
446 altitude Serengeti (Grosvenor 1986) or literally “the rooftop of the world.” Situated at a
447 distance from the Silk Road, it was nevertheless connected to a number of ancient urban and
448 trade centers in Far Western, Central, and Eastern Tibet and neighboring extended Himalayan
449 region. The lower-lying parts of the plateau, at 2,500 to 4,000 meters had for millennia
450 accommodated dynamic connections between nomadic formations (some highly expansionist
451 like the Mongol empire) and permanent settlements with centralized authority variably
452 exercised by monasteries, aristocratic elites, and imperial powers.

453 Seeking to explain the origin of yak nomadism in Chang Tang some 350 years back,
454 my colleagues and I have analyzed historical data and oral histories of intraregional migration
455 events and settlements from the 1670s A.D. onward (Tsering and Bleie 2016, Bleie and
456 Tsering 2017a, b). The hitherto unknown east–west migration history we have started to shed
457 light on, reveals a volatile period of contending empires and internal turmoil in Eastern,
458 Central, and Western Tibet in the late seventeenth and eighteenth centuries. In the wake of
459 bitter regional and local armed conflicts, people looked for spiritual renewal and opportunities
460 to escape and settle somewhere else. These factors drove farmers and nomads from
461 communities in Eastern Tibet (currently Kham and Amdo Provinces) in a combined
462 pilgrimage and search for new territory. They had heard revered spiritual masters (*lamas*) and
463 returning pilgrims tell tales about an immense wilderness with excellent pastures and teeming
464 wildlife surrounding their sacred landscape. At its center towered Mount Kailash at 6,638
465 meter – the Buddhist world’s *axis mundi* – and the sacred turquoise Lake Manasoarvar.
466 Different Buddhist orders all vying for greater influence, had established monasteries in the
467 region.

468 Our applied explanatory model specified push and pull factors in the source
469 communities and the high-mountain destination area and traced accumulated migratory
470 effects over several generations (Bleie and Tsering 2017). Using this theoretical approach, we
471 are now constructing for the first time elements of a historical narrative of how south-western
472 Chang Tang was gradually transformed from a largely uninhabited wilderness to a habitable
473 nomadic realm, with a dynamic frontier and an increasingly well-functioning, if
474 predominantly nomadic society. Discussing certain key findings, I shall make reference to the
475 crucial insights of Bjørklund, Hansen and other colleagues on contextual drivers of reindeer
476 pastoralism, including transformed herding units and settlement-dwelling complex,
477 understood as formed within the dynamic relations of the herd-herder-pasture triad.

478 As mentioned above, regional and national political unrest and local conflicts between
479 warring clans in Eastern Tibet constituted the major push factors. Key pulling factors were the
480 enormous pastures, abundant wildlife resources, and captivating Buddhist religious/mythic
481 ideas of a promised land of bliss, religious merit, and abundant pastures (Ches ngags 2010,
482 53). These pioneers were members of the numerous *Drongpa* clan originating from a few
483 identifiable source communities in Eastern Tibet. These *Drongpa* communities were
484 renowned for their warrior tradition (Bleie and Tsering 2017). Groups of *Drongpa* households
485 and their livestock set out on a several week-long and arduous migration across the plateau. In
486 terms of occupation, rank, and repute these early migrants were a mixed lot. Some were
487 defecting or fleeing warriors. Others were prominent religious figures or laypersons with a
488 desperate wish to escape political enemies or grinding poverty and oppression on monastic
489 estates. Quite a sizeable number were peasants, others came from nomadic families. The
490 highly varied backgrounds are somewhat unexpected and consequential since a nomadic
491 adaptation was the only viable option, save seeking admission into one of the ancient
492 monastic orders located in the vicinity of the sacred Mountain Kailash (Blondeau and
493 Steinkellner 1996; Huber and Rinzin 1995; Dowman 1997). The peasant migrants knew
494 husbandry, but did not possess the necessary practical survival skills in high-elevations and
495 had to team up in bands with newcomers from nomadic territories who knew how to construct
496 and arrange a black yak-hair tent and herd mighty yaks, goats and sheep under extremely
497 rough climatic conditions.

498 Legally speaking, Tibetan peasants and pastoralists could only obtain user rights to
499 land on their lords' estates. However, the mighty landowning aristocracy and lords of
500 monasteries in the ancient power centers in central and eastern Tibet had few or no means of
501 directly enforcing land policies in a far-flung south-western corner of Tibet, including Chang
502 Tang. The early generations of migrants fled land scarcity, exploitation, and internal strife

503 were motivated by the prospect of allegedly unlimited mountain pastures. Those who arrived
504 safely, lay claim to pastures north of the holy Mount Kailash. In the critical early years of
505 forming mobile settlements and viable flocks of yak and sheep, they relied on each other for
506 survival, guidance, and assistance. In this phase, the plateau's abundant wildlife was a stable
507 source of protein and fur. Herders could also extract salt, a much sought-after barter item in
508 the Trans-Himalayan trade network. The herding units were flexible bands composed of
509 nuclear and extended *Drongpa* households who coordinated their daily affairs and work
510 together to manage ever-increasing flocks and other vital productive and reproductive tasks.
511 The dynamics of growing nomadic bands of kinsfolk interrelated by blood and marriage
512 (necessary for management of larger flocks etc.) resembles the debated crucial importance of
513 *siidas* in the development of reindeer pastoralism in the eighteenth century and the debate of
514 the relative weight of external and internal drivers for its rise.

515

516 **Understanding the Drongpas' dwelling-settlement complex**

517 The eastern *Drongpa* migrants of nomadic background brought the ingenious black tent
518 tradition to western Tibet. The fabric of the black tent was made of woven yak hair, patiently
519 sheared over years and collected into large bundles. Nomads carefully plucked and combed
520 their animals with a great amount of affection. They were acts of mutuality between humans
521 and these majestic animals. The black tent as a process and design constituted a concrete
522 manifestation of a symbiotic spiritual bond between humans and yaks. When hair bundles had
523 attained a certain size, women spun yarn and wove on their mobile looms. Durable strips of
524 woven fabric would then be stitched tightly together. The fabric would shrink during the dry,
525 warm season and expand and become so to say waterproof during the cold season. Black tents
526 (regardless of type), would be held up by loops and toggles over a solid ridge pole. The

527 Tibetan tent was erected without an apex outlet, unlike the Sámi's *lavvu*. Smoke escaped
528 through and rays of daylight or moonlight penetrated the fabric. The thick cloth was water
529 resistant thanks to the wool's lanoline and soot from the oil from burnt dung. Returning to our
530 introductory discussion on how to theorize a nomadic dwelling, those who made and dwelled
531 in yak tents had arguably far more than a protective shelter.

532 Three poles were connected to the ceiling board and held the tent upright. The
533 innermost pole was sacred, adorned with a traditional silk scarf, juniper leaves, and wool from
534 dead or live sheep whose lives were spared as acts of compassion. A ritually installed
535 fireplace was in the center, dividing the tent into two halves. Without a properly ritually
536 installed hearth taming unruly malevolent influences, purifying the place and installing
537 protective deities, a tent and a camp would be uninhabitable. Intricate codes and social
538 arrangements regulated where household members and guests sat, worked, and slept. The yak
539 tent's covered ground formed a membrane between the human dwellers and an underworld of
540 volatile spirits, which they sought to tame by enacting powerful appropriation rituals. Toward
541 the end of a season, the nomads would dismantle their abodes and put them up in a new camp.
542 They mounted their disassembled tents and household goods onto waiting yaks or horses.
543 Only the fireplace was left behind, meticulously covered, in expectation of returning. The
544 Tibetan notion of sacred hearth was not unlike the religious idea of the Sámi of a hearth,
545 which was an abode for deities and hence sought preserved in anticipation of later returns to
546 old camp sites (Anderson et. al 2013; Storm, 2015). In our analysis, the permanency of the
547 ritually installed fireplaces in western Tibet turned them into sites for protective deities,
548 constituting powerful pegs connecting heaven and earth and making any encampment realm
549 spiritually inhabitable – a place humans and animals could shelter and find sustenance.

550 Caravans of heavily laden animals and humans could move across realms or
551 “landscapes” using celestial coordinates, place memory, and their flocks' instinctive

552 knowledge of migration routes. As nomadic society evolved, settlement realms became
553 relatively well-defined territorially. Nomads knew their own realm intimately and felt
554 custodianship for its wildlife, water sources, and meadows. Though we have not come across
555 visual material comparable to the debated front cover of the book written by the Swedish
556 cleric Schefferus (1673), his portrayal of a hunting band on the move could have illustrated
557 daily mobility in the Tibetan Plateau. On reaching any destination, tent pitching relied on
558 customary practices, a degree of central and local administrative regulation and extremely
559 careful attention to religious, meteorological, and hydrological conditions. As long as one
560 moved within an established territory, people pitched their tents over treasured ancient
561 fireplaces. When Chang Tang's newly arrived nomads out of necessity or simply to
562 demonstrate coercive power, expanded their realms and crossed into other's territory, they
563 would have to make their tents spiritually inhabitable by installing new hearths.

564 The Tibetan black tent can profitably be conceptualized as an assemblage of
565 cosmological notions enacted in skilled practices, comprising place-making rites, the notion
566 of a sacred pole, the plucking of hairs from yaks and the craft of producing this superbly
567 durable woven material. Tents were taken down and carried on yak or horseback across
568 encampment realms harboring pastures, springs, wetlands, salt mines, and huge rocks – the
569 abodes of spirits. Ingold's theoretical insistence on the cosmological underpinnings of making
570 and unmaking a nomadic dwelling holds true. His extended argument about a fundamental
571 difference between a nomad's tent and a farmer's lodge seems more problematic. Our
572 historical data suggest that a sizable number of *Drongpa* migrants came from farming
573 communities and apparently managed to shift to a nomadic life, no doubt aided by cohabiting,
574 intermarrying with members of herding units who came from nomadic communities and with
575 whom they formed bands. Such evidence raises circumstantial doubts about any fundamental
576 difference between these dwelling complexes. If our historical data had contained specific

577 information about flawed designs and lack of functionality and skills as a direct cause of
 578 morbidity and mortality, we could have been more specific. What does constitute more solid
 579 evidence of transitional dwelling forms are the nomads' place-making rites. Headed by
 580 revered monks, these rites centered on installing hearths as sacred abodes built on a
 581 cosmological (*mandalic*) *model* of hierarchical purity, adopted from the cosmological design
 582 of monasteries as pure sacred centers (Bleie and Tsering 2017, 13).

583

584 **Revisiting state authority-pastoralist society through a comparative lens**

585 Now, returning to the broader historical context, historical data reveal the drivers behind the
 586 formation of early nomadic society in Chang Tang also show that even the first generation of
 587 newcomers were competing with each other for the most attractive meadows and sources of
 588 drinking water. *Drongpas*, who were skilled in the martial arts mobilized large groups of
 589 herders, and used a combination of persuasion and outright intimidation to gain access to
 590 valuable resources. About 50 *Drongpa* households settled along the Sengge Khabap river
 591 north of the sacred Kailash by negotiating and applying pressure, forming three nomadic
 592 settlements. In recognition of the importance of their clan back in Eastern Tibet they named
 593 their nomadic realms *Drongpa Tsosum*, which literally means “the three nomadic realms of
 594 the *Drongpa* people” (Tsering 2006, 70). *Drongpa Tsosum*'s territory was rich in water,
 595 grassland, wildlife, and salt. Over the years, news of their success as pastoralists reached
 596 people back in their old homeland, encouraging a new wave of *Drongpa* migration from
 597 Eastern to Western Tibet. A protracted accumulative migratory process had begun.

598 At this stage of Chang Tang's settlement history, the *Drongpa Tsosum* had become a
 599 local state-sanctioned dynamic herding community. Herders were defined as subjects, to be
 600 taxed for each yak they owned. The *tsosum* was directly administered by an official (Garbon)

601 who was the General Administrator (Tsering 2006, 70). The emerging local governance
602 structure (Tshul kriam 2003, 21-24) had four tiers of officials and gave the government in the
603 capital Lhasa an opportunity to obtain benefits apart from the lucrative income from taxation.
604 The structure also provided local chieftains with an entirely new type of political and judicial
605 authority, including arbitration rights, rights to local taxation, and different kinds of labor
606 services.

607 Returning to Northern Fenno-Scandinavia, the influential historian Lars Ivar Hansen's
608 (se e.g. 2012, 2013) research on the interfaces between the coastal and inland Sámi and
609 surrounding state formations from the late Middle Ages onward, provides a rare and useful
610 empirical intake to uncover the drivers and outreach of settlements. Reliable taxation lists,
611 constitute a prime source of evidence. They represent a fascinating historical testimony of
612 how the Sámi population became subjected to state expansion from at least three different
613 centers. From the west and south the kingdom of Norway-Denmark extended influence, from
614 the south the Swedish kingdom enlarged their presence and from east Russian and Karelian
615 tax collectors and private traders or *birkarler* (Bergmann and Edlund 2016). All these states
616 shared a European peasant civilization outlook. Their elites craved after luxurious furs. The
617 monarchical and imperial authorities vied to fill state coffers from tax on the flourishing
618 regional trade. The fact that these colonial incursions did not in this phase lead to mass
619 impoverishment and indebtedness, is more of a testimony to continued relative sovereignty of
620 Sámi peoples of Northern Fenno-Scandinavia than self-imposed self-restraint in Copenhagen,
621 Stockholm and St. Petersburg.

622 In light of such consequential historical evidence about the taxation system of Sámi
623 nomads and semi-nomads in the late sixteenth and early seventeenth centuries, let me
624 highlight certain comparable findings on taxation in the early nomadic formation we are
625 currently researching. Chang Tang's herders were obliged to pay a herding tax. Clusters of

626 three nomadic households shared joint responsibility for herding ewes. In addition, one of the
627 households was obliged to herd yaks, and another to herd packing sheep, used to transport the
628 commercially valuable salt and other goods. Finally, one household in each cluster was put in
629 charge of herding lambs. Housekeeping constituted another area of labor. The chief's family
630 was entitled to have thirteen male and female servants, who took care of all kinds of daily
631 household chores. A final domain of labor service was the arduous task of moving livestock
632 and people between summer, autumn, and winter pastures. When the chief's family moved
633 from summer to autumn pastures, three *Tso* were obliged to provide 60 yaks and six persons.
634 Before moving to the winter pastures, the head family could compel three *Tso* to provide 40
635 yaks and four laborers. The lucrative trans-Himalayan salt trade constituted another area that
636 involved tributary labor arrangements. Three *Tso* were annually responsible for providing
637 three persons to transport the salt to its destination on behalf of the chief. Collected tax in cash
638 was submitted to the local government in Lhasa.

639 Analysis of this multi-tier governance structure makes it evident that resource
640 extraction and property accumulation in Chang Tang's early nomadic society were based on a
641 pastoral regime that entailed a range of labor obligations. The measuring unit was a *lab*: one
642 yak equaled one *lab*; seven sheep equaled one *lab*; and 12 *lab* were assessed as the equivalent
643 cash tax of one *dramgar*, the erstwhile currency (Tsering 2006, 360-366). In order to acquire
644 the cash necessary to fulfill tax obligations, herders relied on income from the lucrative salt
645 trade and trade in animal products. Again relating our tax data and preliminary findings to the
646 innovative studies of Hansen (quoted above), we do not have taxation lists for extensive
647 periods, providing detailed information on many identifiable individuals, herding and
648 dwelling units. As debated, the extraordinarily comprehensive royal tax lists allowed Hansen
649 to construct detailed social maps showing intricate mobility and settlement patterns between
650 inland and fjords and within watersheds. Our archival data on the early tax system in Chang

651 Tang do not provide systematic tax lists of generations of taxpayers. The data sets
652 nevertheless provide novel and important insights into the rise of an elaborate, multi-tiered
653 taxation system. It was both as a result of indirect governmental intervention in a peripheral
654 frontier society using local *Drongpa* chiefs as intermediaries who had allowed themselves to
655 be co-opted into the governance system, in exchange for hereditary rights to local taxes and
656 labor services. In other words, this taxation system led to hierarchical differentiation between
657 *Drongpa* sub-clans within settlement realms. Such stratification processes are not reported by
658 Hansen, Bjørklund and Sara in their seminal studies of the Mountain and Sea Sámi.

659 Efforts have been made to piece together certain salient features of the Western
660 Tibet's governance system in a context of mobile settlements and herds in the late seventeenth
661 and eighteenth centuries into a jigsaw puzzle, painstakingly retrieved from various archival
662 data and oral sources. The organization was semi-formalized and characterized by increasing
663 social stratification based on hereditary, gendered, and clan-related status, in terms of rights to
664 offices, pastures, tax and labor obligations. The social and political organization also
665 incorporated tribal traits based on well-tested customary nomadic practices in the source
666 communities back in eastern Tibet in vital areas of decision-making, including arbitration of
667 local disputes, in which pasture rights dominated (Goldstein 1971 a, b; Kensaku 2014). The
668 so far largely undocumented historical development in Chang Tang entailed the establishment
669 and institutionalization of incipient governance and settlement structures as the dynamic
670 outcomes of negotiations and compromises between an increasingly diverse nomadic
671 population in Chang Tang and a centralized power center in Lhasa with an extremely limited
672 immediate presence. Given the climatic and topographical variations and the importance of
673 balancing herding, hunting, and trade, Chang Tang's nomads cultivated necessary contacts
674 with local monastic communities, itinerant traders, sages, pilgrims, and seasonally present
675 representatives of the high lords in distant Lhasa. Hansen's historical study of the network of

676 reindeer herders in Finnmark, exposed a similar complexity in terms of scale (both numbers
677 and outreach).

678 **Conclusion**

679 This paper represents an early effort to advance a comparative approach to the study of
680 historic settlements in Northern Fenno-Scandinavia and Western Tibet. The fundamental
681 premise for this enquiry is that it makes sense to compare the Sámi of northern Scandinavia
682 and pastoralists of the western Tibetan plateau and that it may yield important comparative
683 insights for two so far rather insulated scholarly communities. My point of departure has been
684 to attempt to establish elements of a foundation for a reframed approach to the settlement-
685 dwelling nexus, set within a contextual analysis of historical change. Applying insights from
686 theoretic contributions of social and cognitive anthropologists, historians, and archeologists,
687 the settlement-dwelling nexus is situated within an overarching understanding of certain
688 fundamentals of pastoralist regimes in general. The dynamic interfaces between pastoralists
689 and agricultural civilizations, which include pastoral regimes' contact with, and even some
690 degree of incorporation into state formations (including trade networks, taxation, land and
691 settlement policies), and the diverse, sophisticated skill base of pastoralists, their social fabric,
692 transhumance cycles, and conservation practices - all constitute such overarching
693 fundamentals.

694 Therefore, I reject the premise that nomadic dwellings constitute the building blocks
695 of settlement. On the contrary; the unique nature of mobile settlement realms, in several
696 respects constitute the dwelling as a system of religious ideas and functional, intricately
697 ordered interior place. In terms of spatial outreach settlements could fluctuate, and at times
698 attain an enormous scale (based on negotiated or appropriated user rights to pastures and
699 water) and constituted diverse local ecologies, with which humans and livestock had to

700 engage, and from which they reaped nature's bounty. Apart from sheltering people and
701 livestock under extreme conditions, nomads crafted their dwellings as microcosms of an
702 outdoor life-world in which humans and semi-domesticated reindeer and yaks co-existed in
703 mutual affection, trust, inter-dependency and a certain amount of brutality and objectification.
704 This was arguably the case as pastoralism's inner logic restructured herders-herd relations.

705 Ingold's intriguing theoretical proposition about a categorical difference between a
706 nomad's and a farmer's dwelling has proved useful to think with. Especially so, when
707 grappling with an analysis of ethnographic and archival evidence of transitions *from*
708 sedentary/semi-sedentary *to* full-fledged mobile societies and of transitions *from* a pastoral
709 adaptation *to* sedentary and semi-sedentary life in close proximity of sedentary settlements, be
710 they farming villages, fishing communities, market places, government outposts or
711 monasteries.

712 This preliminary scrutiny of historical dwelling designs and practices of Sámi and
713 Tibetan pastoralists indicates that nomads in both regions internalized and activated different
714 spatial models and inventively mediated between different spatial models according to
715 seasonal shifts or irreversible shifts of leaving the nomadic adaptation altogether. The
716 examined works on the Northern Sámi during the heyday of pastoralism show how they
717 shifted between highly mobile and semi-permanent dwellings and settlements. Moreover, a
718 trickle of nomads abandoned over generations a specialized pastoralist adaptation and
719 resettled in permanent Sea Sámi settlements, carving out a living by combining fishing,
720 agriculture, husbandry, and hunting. The fact that the same term *goahti* was applied for the
721 permanent (*bealljigoahti*) lodging (Bjørklund 2013b, 79) might lend support to the continuity
722 argument. This being so, evidence of a more fine-grained ethnographic and architectural
723 nature would nevertheless be important for a fuller understanding of the interfaces between
724 cosmological notions, functional design, and everyday dwelling practices. Here one can hope

725 to unravel empirically processes of accommodation, innovation, and possible unmediated
726 gaps. If significant unmediated gaps are found, they could obviously be interpreted in light of
727 Ingold's theoretical argument of a fundamental difference between the nomadic tent and the
728 farmers lodge.

729 Ongoing research on spatial models of Tibetan nomads of the seventeenth and
730 eighteenth centuries, reveal they were conversant with monastery complexes, which were
731 architecturally designed monumental buildings centered on a cosmological (*mandalic*) model
732 of hierarchical purity. Somewhat unexpectedly, we have found the same spatial model
733 underpins the obligatory place-making rites enacted for installing a hearth before raising any
734 tent. Our finding that a not insignificant number of early nomads originally came from
735 farming communities in Eastern Tibet, a region of powerful manorial estates and Buddhist
736 monasteries of different sects, may represent another piece in the historical puzzle. It helps
737 explaining this particular aspect of spatial continuity, notwithstanding other, no doubt
738 significant differences between a disassembled/assembled tent and a permanent farmer's
739 lodge.

740 The expanding research frontier on the origin question of Sámi pastoralism may
741 profitably be related to the ongoing study of the origin of yak nomadism and early settlements
742 in southwestern Chang Tang. We have discussed three major strands of thought on the origin
743 of Sámi pastoralism. One emphasizes external drivers and a second strand accords primacy to
744 internal factors. A third position, advocated by Bjørklund amongst others, calls for a more
745 balanced two-sided approach, weighing several internal and external drivers.

746 Our story of the rise of yak nomadism in Chang Tang differs from the origin story of
747 reindeer nomadism in one particular sense: we are unraveling the expansion of a specialized
748 herding and dwelling mode though a dramatic east–west migratory process, not the origin of a

749 specialized herding mode per se. This qualification aside, our explanatory framework accords
750 importance to a mix of external and internal factors and illuminates how closely macro-meso-
751 micro conditions connected and motivated regional transmigration over successive
752 generations. This protracted migratory history led to the rise of a pastoral society in this
753 corner of the Tibetan plateau. Our findings here are in line with Bjørklund's critique on the
754 so-called shift argument. Turmoil in the late seventeenth century caused by contending
755 regional powers, spread and engulfed the farming and nomadic territories in Kham and
756 Amdo, which became the source communities of an east–west mass migration. They brought
757 their precious black yak tents with them. Important internal factors behind the risk-prone
758 migration across treacherous high mountains spanned from devastating local clan feuds,
759 prosecution, desire to escape hardship on manorial estates, to religiously colored tales of
760 blissful faraway lands of unlimited pastures near the sacred Mount Kailash. As importantly,
761 the early flocks of long-distance migrants-cum-pilgrims numbered not only impoverished
762 farmers, professional soldiers, and convicts, nomads too migrated, bringing with them a
763 critically important skill base of herding and living in the ingeniously adapted yak tent, whose
764 sacral and mundane interior organization epitomized a life-world of intimacy and mutual
765 interdependence of herders and herd. Our findings are comparable with Bjørklund's argument
766 that changes in settlement patterns were a direct effect of a transition, rather than a shift from
767 hunting to pastoralism. With the rise of pastoralism, the sturdy *bealljigoahti* became a
768 principal mobile dwelling (a turfmade permanent variety of it was used in coastal areas),
769 while the lighter conical *lavvu* was also in use during seasonal migrations. Both designs were
770 ingenious adaptations and functioned to accommodate dwelling requirements during
771 migrations and stationary seasons under the new extensive herding regime.

772 Our investigations have successfully mapped important facets of the rise of flexible
773 bands. Bands were composed of tent dwelling nuclear and extended *Drongpa* households,

774 which coordinated daily affairs and cooperated in order to manage larger flocks and a range of
 775 seasonally vital productive and reproductive practices. The dynamic rise of larger nomadic
 776 bands of kinsfolk interrelated by blood and marriage resembles Sara's and Bjørklund's
 777 arguments about the crucial functions played by the re-ordered *siidas* in the development of
 778 reindeer pastoralism in eighteenth-century northern Scandinavia.

779 The Western Tibetan nomads' system of governance in the late seventeenth and
 780 eighteenth centuries, constituted an inventive accommodation to the special nature of the
 781 central authority's limited presence in this distant, but geopolitically important frontier. We
 782 have found evidence of a semi-formalized organization, characterized by increasing social
 783 stratification, affecting rights to offices, pastures, taxation and labor obligations. In vital areas
 784 of decision-making, the evolving organization incorporated tribal traits, grounded on well-
 785 tested customary practices. Of paramount importance was arbitration of local disputes, in
 786 which pasture rights dominated and imposition of tax and labor obligations, which led to
 787 internal social and economic differentiation. This generated a more stratified, but better
 788 governed nomadic society. This Western Tibetan pastoralist society of chiefly clans and
 789 commoners seems to differ from the considerably more egalitarian narrative scholars on the
 790 Sámi point of their kin-based social organization prior to and after full-fledged pastoralism
 791 evolved in northern Scandinavia.

792

793 **Endnotes**

¹The notion "first and third pole" originated in contemporary scientific discourse on global environmental change. The term presupposes that effects and processes of climate change on the South and the North Poles and in the "third pole" - the extended Himalaya and Tibetan Plateau - shows notable similarities. The Tibetan Plateau is the largest high-altitude landmass on the globe. The third pole is the globe's water towers with the third largest fresh water reserve after Arctic and Antarctic.

²I like in particular to acknowledge the invaluable comments of my project lead partner and colleague Dawa Tsering, Senior Scholar at Tibet Academy of Social Science (TASS) in Lhasa (TAR). The Network for University Co-operation Tibet-Norway has solicited essential external financial support. Other institutional support was provided by UiT- The Arctic University of Norway.

³ The notion landscape has an arch-European origin in Dutch landscape painting, *landschap* in Dutch and *landskap* in Norwegian.

Disclosure Statement

No potential conflict of interest has been reported by the author.

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